

## ABSTRACT

A control apparatus and control method for controlling the separation in a dividing wall distillation column of at least two feeds into at least three products is disclosed. The apparatus uses a temperature measuring device to measure the  
5 temperature of fluid in the column, a controller, and a means for adjusting the temperature of fluid in the column. The temperature measuring device may be on either side of the dividing wall or above or below the dividing wall, and more than one such device may be used. The apparatus and method may be used in the production of  
10 alkylaromatic hydrocarbons by alkylating aromatic hydrocarbons with olefinic hydrocarbons.